

## **REMARKS/ARGUMENT**

### **Rejections under 35 USC §§102(b) and 103(a)**

In the Office Action, claims 24-32 are rejected under 35 U.S.C. §102(b), as being anticipated by Garces Garces et al., WO 01/01926 or, alternatively, under 35 U.S.C. §103(a), as being obvious over Garces Garces et al., WO 01/01926. (The examiner continues to refer to the text of a translation provided by applicants from USSN 10/018,731, under applicants' assignee's docket no. H4199, which issued as US Patent No. 6,818,296 on Nov. 16, 2004. Applicants previously referred to the text of the US patent to Garces Garces et al., now refer to the translation text referred to by the examiner.)

Applicants' independent claim 24, as newly presented in the applicants' last amendment paper (reformatted and underlined for clarification) is as follows:

Claim 24 (New): An aqueous fabric treatment composition comprising microcapsules

having an inner core comprised of a soil repellent and  
an outer membrane consisting essentially of chitosan,

wherein the soil repellent is selected from ethylene terephthalate, polyethylene glycol terephthalate groups or a combination thereof, the molar ratio of ethylene terephthalate to polyethylene glycol terephthalate being in the range from 65:35 to 90:10.

Pending claims 25-32 are dependent upon Claim 24.

Applicants respectfully submit that Garces Garces et al., WO 01/01926, does not disclose or suggest an aqueous fabric treatment composition comprising microcapsules having an inner core comprised of a soil repellent and an outer membrane consisting essentially of chitosan.

In the Final Action, in response to applicants' previous argument, the examiner states: "Specifically, Garces Garces et al. clearly discloses that the active ingredients in the core of the microcapsule further includes soil repellents, such as ethylene terephthalate/polyethylene glycol terephthalate copolymers with a molar ratio of 65:35 to 90:10 (see page 28, line 29-page 29, line 14 and page 35, line 7-23 of Garces Garces et al.), as required by the instant claims. Therefore,

the examiner maintains that the soil repellants disclosed in Garces Garces et al. are contained in the microcapsules.” (underlining added)

Applicants respectfully submit that the examiner is not reading the disclosure of Garces Garces et al. with the requisite skill of the art, and his assertion that “the soil repellants disclosed in Garces Garces et al. are contained in the microcapsules” is false.

The examiner needs to read the application in context in order to understand what is meant by “active principle” and “preparations which may contain other typical ingredients”.

Applicants submit that the art-skilled reader would readily understand that, as used in Garces Garces et al., “preparations” does not refer to encapsulated substances. Instead, Garces Garces et al. uses the term “active principles” to refer to the encapsulated substances. Thus, at page 3, lines 3-11, the invention is first described as follows:

**Description of the Invention**

The present invention relates to microcapsules with mean diameters of 0.1 to 5 mm consisting of a membrane and a matrix containing at least one active principle and obtainable by

- (a) preparing a matrix from gel formers, chitosans and active principles,
- (b) dispersing the matrix in an oil phase and
- (c) treating the dispersed matrix with aqueous solutions of anionic polymers and removing the oil phase in the process.

(underlining and bolding in body of quoted paragraph added)

And, at page 5, line 22 to page 6, line 12, Garces Garces et al. defines “active principles” in general and lists several “active principles” for cosmetic and pharmaceutical microcapsules, as follows:

**Active principles**

Basically, the choice of the active principles encapsulated in the new microcapsules is not critical. They are preferably substances which are only released by mechanical destruction of the microcapsules. In cases such as these, the function of the microcapsules is to prevent contact between the surrounding environment and the active principle and, hence, chemical reaction and degradation. It may be that the encapsulated substances are not to be released at all and merely serve the purpose of providing the preparation with an aesthetic appearance. This often applies, for example, to dyes. It is of course clear that these forms of use may also exist alongside one another. More particularly, it is possible for example to encapsulate a perfume to be subsequently released together with a pigment which provides the capsule with a particular appearance.

Active principles for cosmetic and pharmaceutical applications

Typical examples of active principles used in cosmetic and pharmaceutical preparations are surfactants, cosmetic oils, pearlizing waxes, stabilizers, biogenic agents, vitamins, deodorants, antiperspirants, antidandruff agents, UV protection factors, antioxidants, preservatives, insect repellents, self-tanning agents, tyrosine inhibitors (depigmenting agents), perfume oils and dyes.

(underlining in body of quoted paragraph added)

With this understanding of the use of the term "active principles", applicants turn to the first portions of the Garces Garces et al. disclosure to which the examiner specifically refers. This paragraph at page 28, line 28 to page 29, line 14, refers to "preparations" containing the aforementioned microcapsules and other components/substances, as follows:

Cosmetic and/or pharmaceutical preparations

**The microcapsules according to the present invention are intended for the production of surface-active compositions** and, in a first embodiment, particularly for the production of cosmetic and/or pharmaceutical preparations such as, for example, hair shampoos, hair lotions, foam baths, shower baths, creams, gels, lotions, alcoholic and aqueous/alcoholic solutions, emulsions, wax/fat compounds, stick preparations, powders or ointments. **These preparations may also** contain mild surfactants, oil components, emulsifiers, superfatting agents, pearlizing waxes, consistency factors, thickeners, polymers, silicone compounds, fats, waxes, stabilizers, biogenic agents, deodorizers, antiperspirants, antidandruff agents, film formers, swelling agents, UV protection factors, antioxidants, hydrotropes, preservatives, insect repellents, self-tanning agents, solubilizers, perfume oils, dyes and the like as further auxiliaries and additives. Many of these auxiliaries were discussed in detail in earlier paragraphs so that they need not be repeated here.

(bolding added)

Applicants submit that the skilled reader would readily understand that this portion of the Garces Garces et al. specification has no bearing on the presently claimed aqueous fabric treatment composition comprising microcapsules having an inner core comprised of a soil repellent and an outer membrane consisting essentially of chitosan. The art-skilled reader would fully understand that this part of the Garces Garces et al. disclosure concerns additional cosmetic or pharmaceutical components/substances which may be combined with the Garces Garces et al. microcapsules in a cosmetic or pharmaceutical product (i.e., "preparation"). **Thus, the first specific portion of the Garces Garces et al. disclosure cited by the examiner does not concern either the content of the microcapsules or detergent compositions and is, therefore, is not relevant to applicants' claims.**

The most relevant disclosure of Garces Garces et al. to applicants' claim 24 is the reference to "active principles for detergent applications", which is found at page 18, line 19, to page 19, line 3, which states:

Active principles for detergent applications

Where microcapsules are used in the field of detergents, particularly laundry detergents, it is again desirable to prevent the various ingredients from coming into contact with one another. Thus, it is appropriate to encapsulate chemically sensitive substances, such as perfume oils or optical brighteners for example, in order to safeguard their activity, for example in chlorine or peroxide bleach liquors, even in the event of prolonged storage. However, use is also made of the fact that the bleaching of textiles generally takes place during rather than at the beginning of the washing process, the release delayed by mechanical action on the microcapsules ensuring that the bleaching agents develop their full effect at the right time. Accordingly, active principles to be encapsulated for detergent applications include, above all, bleaching agents, bleach activators, enzymes, redemption inhibitors, optical brighteners and (chlorine- and peroxide-stable) perfumes and dyes.

(underlining added)

Lest the examiner thinks otherwise, Garces Garces et al. makes clear that "redemption inhibitors" are not the same as the "soil repellents" included in the present applicants' claimed microcapsules. Continuing under "Active principles for detergent applications" from page 18 of Garces Garces et al., "redemption inhibitors" are described at page 20, lines 10-23, as follows:

Suitable **redemption inhibitors** are water-soluble, generally organic colloids, for example the water-soluble salts of polymeric carboxylic acids, glue, gelatine, salts of ether carboxylic acids or ether sulfonic acids of starch or cellulose or salts of acidic sulfuric acid esters of cellulose or starch. Water-soluble polyamides containing acidic groups are also suitable for this purpose. Soluble starch preparations and other starch products than those mentioned above, for example degraded starch, aldehyde starches, etc., may also be used. Polyvinyl pyrrolidone is also suitable. However, cellulose ethers, such as carboxymethyl cellulose, methyl cellulose, hydroxyalkyl cellulose, and mixed ethers, such as methyl hydroxyethyl cellulose, methyl hydroxypropyl cellulose, methyl carboxymethyl cellulose and mixtures thereof, and polyvinyl pyrrolidone are also preferably used, for example in quantities of 0.1 to 99% by weight and preferably 1 to 5% by weight, based on the composition.

Thus, it is clear to the art-skilled reader that "soil repellants" are not included as even possible components (i.e. "active principles") of the Garces Garces et al. detergent microcapsules. **Accordingly, applicants submit that their claimed invention is not**

**anticipated by Garces Garces et al., and applicants respectfully request withdrawal of this rejection under 35 U.S.C. §102(b).**

On the other hand, at page 32, line 10 to page 33, line 2 of Garces Garces et al., "soil repellents" are included in the list of possible components of "detergent preparations", that is, components which may be combined with the microcapsules to make a more complete detergent product, as follows:

**Detergent preparations**

In another embodiment of the present invention, **the microcapsules are used for the production of detergents, especially laundry detergents**, dishwashing detergents, cleaning compositions and fabric softeners, in which they may also be present in quantities of 0.1 to 99% by weight and preferably in quantities of 1 to 5% by weight, based on the preparations. The detergents in question are preferably aqueous or aqueous/alcoholic preparations. These liquid detergents may have a non-aqueous component of 5 to 50% by weight and preferably 15 to 35% by weight. In the most simple case, they are aqueous solutions of the surfactant mixtures mentioned. However, the liquid detergents may also be substantially water-free compositions. "Substantially water-free" in the context of the present invention means that the composition preferably contains no free water which is not bound as water of crystallization or in a comparable form. In some cases, small quantities of free water are tolerable, more particularly quantities of up to 5% by weight. **The compositions used in the detergent field may contain other typical ingredients such as, for example, solvents, hydrotropes, bleaching agents, builders, viscosity adjusters, enzymes, enzyme stabilizers, optical brighteners, soil repellents, foam inhibitors, inorganic salts and perfumes and dyes, with the proviso that these additives are sufficiently stable in storage in the aqueous medium.**

(bolding added)

Continuing under the foregoing heading on page 32, namely, "Detergent preparations", the Garces Garces et al. disclosure describes "soil repellants" at page 35, lines 7-23 (as pointed to by the examiner) as follows:

Suitable **soil repellents** are polymers which preferably contain ethylene terephthalate and/or polyethylene glycol terephthalate groups, the molar ratio of ethylene terephthalate to polyethylene glycol terephthalate being in the range from 50:50 to 90:10. The molecular weight of the linking polyethylene glycol units is more particularly in the range from 750 to 5,000, i.e. the degree of ethoxylation of the polymers containing polyethylene glycol groups may be about 15 to 100. The polymers are distinguished by an average molecular weight of about 5,000 to 200,000 and may have a block structure, but preferably have a random structure. Preferred polymers are those with molar ethylene terephthalate: polyethylene glycol terephthalate ratios of

about 65:35 to about 90:10 and preferably in the range from about 70:30 to 80:20. Other preferred polymers are those which contain linking polyethylene glycol units with a molecular weight of 750 to 5,000 and preferably in the range from 1,000 to about 3,000 and which have a molecular weight of the polymer of about 10,000 to about 50,000. Examples of commercially available polymers are the products Milease® T (ICI) or Repelotex® SRP 3 (Rhône-Poulenc).

Applicants submit that the art-skilled reader would readily understand that “soil repellents” are different from “redeposition inhibitors” and that only “redeposition inhibitors” are “active principles” in the microcapsules themselves. **Thus, the art-skilled reader would readily understand that the disclosure of “soil repellents” does not concern the content of the Garces Garces et al. detergent microcapsules.**

**Clearly then, Garces Garces et al. specifically teaches away from the inclusion of “soil repellants” as “active principles” in a detergent microcapsule as is presently claimed in applicants’ pending claims 24-32.**

Moreover, the examples of Garces Garces et al. are all directed to microcapsules containing active principles for cosmetics, and the microcapsules of the exemplified cosmetic preparations contain only the “biogenic agent” “panthenol”. Accordingly, the examples also do not provide the motivation or the assurance of success to make or use the presently claimed detergent microcapsules containing a soil repellant required to establish *a prima facie* case of obviousness. Applicants therefore respectfully solicit withdrawal of the rejection under 35 U.S.C. §103(a) for obviousness over Garces Garces et al. and allowance of the subject application.

There are no further rejections in the subject Office Action. It is believed that the foregoing amendment to the specification and reply are completely responsive under 35 CFR 1.111 and that all grounds of rejection are completely avoided and/or overcome. Applicants therefore respectfully request that a timely Notice of Allowance be issued in this application.

The Examiner is requested to telephone the undersigned attorney if any further questions

Appl. No.: 10/781,576  
Request for Reconsideration dated February 13, 2007  
Applicants' Response to the Final Action mailed January 5, 2007

remain which can be resolved by a telephone interview.

[The undersigned Art Seifert is leaving Cognis Corporation at the end of February. Beginning March 1, Mr. Richard Elder will be at the phone number listed below.]

Respectfully submitted,

**Nuria BONASTRE GILBERT, et al.**

February 13, 2007

(Date):

By: Arthur G. Seifert  
ARTHUR G. SEIFERT  
Registration No. 28,040  
**COGNIS CORPORATION**  
300 Brookside Avenue  
Ambler, PA 19002  
Telephone: (215) 628-1129  
Facsimile: (215) 628-1345  
E-Mail: ART.SEIFERT-CONTRACT@COGNIS.COM

AGS:mc